

What is claimed is;

1. A power system comprising:

a battery unit that includes a battery; and

5 an apparatus main body that operates on power supplied from the battery in the battery unit mounted thereat, the battery unit and the apparatus main body being engaged in information exchange, wherein:

10 a work volume value indicating a volume of work that the apparatus main body has been engaged in is transmitted from the apparatus main body to the battery unit over a predetermined cycle;

15 the battery unit calculates a cumulative work volume value of the work volume value at the apparatus main body and stores the cumulative work volume value therein, and the battery unit also detects a consumed battery capacity value indicating an extent to which a battery power has been consumed at the apparatus main body;

20 the cumulative work volume value, the consumed battery capacity value and a charged battery capacity value are transmitted from the battery unit to the apparatus main body over the predetermined cycle; and

25 the apparatus main body displays a battery use rate indicating an extent to which the battery has been used based upon the consumed battery capacity value and the charged battery capacity value, and also displays the cumulative work

volume value at the apparatus main body.

2. A power system according to claim 1, wherein:

different operating modes of the apparatus main body
5 are classified in correspondence to varying levels of power
consumption;

work volume values each corresponding to one of the
operating modes are transmitted from the apparatus main body
to the battery unit;

10 the battery unit calculates and stores therein
cumulative work volume values corresponding to the individual
operating modes of the apparatus main body and transmits the
cumulative work volume values corresponding to the individual
operating modes to the apparatus main body; and

15 the apparatus main body displays the battery use rate
and the cumulative work volume values corresponding to the
individual operating modes of the apparatus main body.

3. A power system according to claim 1, wherein:

20 the battery unit allows the battery to be charged with
a charge apparatus;

the battery unit and the charge apparatus exchange
information with each other; and

25 the cumulative work volume value stored in the battery
unit is reset to 0 when the battery has been charged by the

charge apparatus.

4. A power system according to claim 2, wherein:
 - the battery unit allows the battery to be charged with
 - 5 a charge apparatus;
 - the battery unit and the charge apparatus exchange information with each other; and
 - the cumulative work volume value stored in the battery unit is reset to 0 when the battery has been charged by the
 - 10 charge apparatus.
5. A power system according to claim 1, wherein:
 - the battery unit allows the battery to be charged with
 - a charge apparatus;
 - 15 the battery unit and the charge apparatus exchange information with each other;
 - the battery unit detects the charged battery capacity value and transmits the detected charged battery capacity value to the charge apparatus;
 - 20 the charge apparatus makes a decision based upon the charged capacity value transmitted from the battery unit as to whether or not the battery is in a fully charged state and ends a charge of the battery once the battery is judged to be in the fully charged state; and
 - 25 the battery unit resets the consumed battery capacity

value stored in memory at the battery unit to 0 when the charge of the battery ends.

6. A power system according to claim 1, wherein:

5 the apparatus main body is a camera; and
 the work volume value is a number of frames of images photographed in the camera.

7. A power system according to claim 1, wherein:

10 the apparatus main body is a camera; and
 the work volume value is a length of time over which the camera has been engaged in use.

8. A camera comprising:

15 a battery unit on which a battery is mounted, that can be detachably loaded into the camera and supplies power to the camera; and
 a function unit that executes camera functions, wherein: as a function of the camera is executed, the function 20 unit transmits information related to the executed function to the battery pack; and

 the battery unit has a storage unit in which the information related to the camera function is stored.

25 9. A camera according to claim 8, wherein:

the function unit accumulates information related to the camera functions and transmits the accumulated information related to the camera functions to the battery unit; and

5 the storage unit stores therein the accumulated information related to the camera functions having been transmitted.

10. A camera according to claim 8, wherein:

10 the storage unit accumulates the information related to the camera function transmitted thereto and stores therein the accumulated information.

11. A camera having loaded therein a battery unit that includes a battery and a first storage unit, which operates 15 on power supplied from the battery unit, comprising:

15 a function unit that executes a plurality of functions of the camera;
 a control unit; and
 a second storage unit, wherein:
20 the second storage unit stores therein cumulative information indicating a value that accumulate as a function is engaged; and

25 the control unit transmits to and stores into the first storage unit the cumulative information in the second storage unit as a first function is engaged, and then resets the

cumulative information at the second storage unit;

the control unit reads the cumulative information stored in the first storage unit of the battery unit from the battery unit as a second function is engaged;

5 the control unit obtains a sum of the cumulative information having been read and cumulative information stored in the second storage unit after resetting; and

10 the control unit uses the sum of the cumulative information thus obtained as new cumulative information to be transmitted to the battery unit.

12. A camera according to claim 11, wherein:

the control unit reads the cumulative information from the first storage unit as a function to be engaged first is engaged and transmits the cumulative information to the first storage unit as a function to be engaged last is engaged.

13. A camera according to claim 11, wherein:

20 a plurality of functions include at least one of an image photographing function, a monitor display function, a light emitting illumination function, an AF function and a zoom function; and

25 the cumulative information includes at least one of a number of images that are photographed, an accumulated time length of monitor display device ON time, a number of times

light has been emitted for illumination, an accumulated length of AF operation time and an accumulated length of zoom operation time.

- 5 14. A camera that operates on power supplied from a battery unit loaded therein having a chargeable secondary battery, a measurement unit that measures remaining battery power value in the secondary battery and a first storage unit in which the remaining battery power value is stored, comprising:
- 10 a function unit that executes a plurality of functions of the camera;
- a control unit;
- a second storage unit; and
- a display unit, wherein:
- 15 the second storage unit stores therein cumulative information indicating values that accumulate as the functions are engaged;
- the control unit transmits to and stores into the first storage unit the cumulative information as a first function is engaged, and then resets the cumulative information at the second storage unit;
- 20 the control unit reads the remaining battery power value and the cumulative information from the battery unit as a second function is engaged;
- 25 the control unit reads the remaining battery power value

as each of the plurality of functions is engaged, displays the remaining battery power value thus read at the display unit, and obtains a sum of the cumulative information having been read and cumulative information stored in the second
5 storage unit;

the control unit uses the sum of the cumulative information thus obtained as new cumulative information to be transmitted to the battery unit.

10 15. A camera system comprising:

a battery unit having a chargeable secondary battery, a measurement unit that measures remaining battery power value in the secondary battery and a first storage unit in which the remaining battery power value is stored;

15 a camera that operates on power supplied from the battery unit loaded therein; and

a charge apparatus that charges the secondary battery of the battery unit, wherein:

the camera includes a function unit that executes a plurality of functions of the camera, a control unit, a second storage unit, and a display unit;

the second storage unit stores therein cumulative information indicating values that accumulate as the functions are engaged;

25 the control unit reads the remaining battery power value

as each of the functions is engaged and displays the remaining battery power value thus read at the display unit;

the control unit reads the cumulative information stored in the first storage unit as one of the functions is engaged;

5 the control unit obtains a sum of the cumulative information having been read and the cumulative information stored in the second storage unit;

10 the control unit transmits the sum to the battery unit for storage and also resets the cumulative information at the second storage unit as another function is engaged; and

15 the charge apparatus resets the cumulative information stored in the first storage unit when the secondary battery in the battery unit has been charged.

16. An electronic apparatus system comprising:

a battery unit having a chargeable secondary battery, a measurement unit that measures remaining battery power value in the secondary battery and a first storage unit in which the remaining battery power value is stored;

20 an electronic apparatus that operates on power supplied from the battery unit loaded therein; and

 a charge apparatus that charges the secondary battery of the battery unit, wherein:

 the electronic apparatus includes a function unit that
25 executes a plurality of functions of the electronic apparatus,

a control unit, a second storage unit, and a display unit;

the second storage unit stores therein information that
is altered as the functions are engaged;

the control unit reads the information stored in the
5 first storage unit as one of the functions is engaged;

the control unit generates the information with new
content based upon the information having been read and the
information stored in the second storage unit;

the control unit transmits the information with new
10 content to the battery unit for storage and also resets the
information in the second storage unit as another function
is engaged; and

the charge apparatus resets the information stored in
the first storage unit when the secondary battery in the battery
15 unit has become charged.